

Date: Thursday, 4/12/2007 8:41:42 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: 350 SKIDTUBE ASSEMBLY RH
Job Number	: 31682		
Estimate Number	: 10268		
P.O. Number	: <i>NIA</i>	Part Number	: D350636014
This Issue	: 4/12/2007	S.O. No.:	: <i>NIA</i>
Prsht Rev.	: NC	Drawing Number	: D2750 UNDER REVIEW <i>CB</i>
First Issue	: <i>NIA</i>	Project Number	: N/A
Previous Run	: 31681	Drawing Revision	: D
		Material	: <i>NIA</i>
		Due Date	: 4/30/2007
Written By	:	Qty:	1 Um: Each
Checked & Approved By	:		
Comment	:		
	: Est Rev:H 02.09.25 Rearranged procedure stepsKJ		
	: Est Rev:I 05.12.08 Rearranged procedure stepsEC		
	: Est Rev:J 06.03.30 Per rev. D EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description:
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1.0	DC	DOCUMENT CONTROL
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Comment: DOCUMENT CONTROL

Photocopy blue file and type labels per PPP D350-636-014 CHG.002

KS 07.04.20

2.0	D26003BENT	Extrusion Bent
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty	Part Number	Description	Batch
1	D2600-3-Bent	Extrusion (Bent)	<i>B 32666</i>

R 7-5-19

3.0	D2744	Fwd Cap
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Cap

Batch: *M103794 / M102421*
*B29784**BE 07-05-22*

4.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

1- Mark cut line on aft end of D2600-3-Bent using Jig DT 8150. Cut to length as per Dwg D2750. Deburr end

2-Drill pilot holes as per Dwg D2750 sheet 3 (D2750-1 details). Drill using drill Jig DT8150 & DT8864 drilling holes labelled "B" only.

3- Mark fwd end for cutting using Drill Jig DT 8150 & DT8864 and cut

R 7-5-19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Job Number:



Seq. #:

Machine Or Operation:

Description :

as per dwg D2750.

4-Drill pilot holes for Detail B using DT8330

5-Open up holes for Detail B, "hole size W" and blade fitting location holes to 0.500" (total of 9 holes per side) as per dwg D2750.

6-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 and open to 0.250" ***Make sure that wearplate holes are on bottom of tube*****

7-Open up holes of Detail A to 0.250" (total of 2 holes per side)

8- Countersink all fwd wearshoe holes (total of 19 holes per side) DO NOT C'SINK THE LAST AFT HOLES (total of 2 per side for blade fitting) as per dwg D2750.

9-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left from bending as per QSI 004
A/R Aluminum Rod *m103794/m102421 BE 07-05-22*

10-Grind welds flush as per Dwg D2750 *Pm 07-05-24*

11-Countersink Detail A as per dwg D2750. *Pm 07-05-24*

7-5-22

5.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

07/05/25

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07-05-25

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

Pm 01-05-25

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

DP 7-5-25

9.0

D2739

350 I Beam



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Web

Batch: *B30884*

Pm 07-05-25

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 31682

Part Number: D350636014

Job Number:



Seq. #:	Machine Or Operation:	Description :
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10.0	D34901	CROSS BOLT SPACER
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Crossbolt spacer

Batch:

B32045

BE 07-05-28

11.0	D34905	CROSS BOLT SPACER
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Crossbolt spacer

Batch:

B29796

BE 07-05-28

12.0	D2743	Crossbolt Spacer
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Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Crossbolt Spacer

Batch:

B29011

BE 07-05-28

13.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

1-Open up holes "size X" (total of 4 holes per side) as per dwg D2750

Pm 07-05-250

2-Open up holes of Detail V & Detail C to 0.625" (total of 8 holes per side) as per dwg D2750.

Pm 07-05-250

3-Chamfer holes of Detail V, Detail C, hole size "W" and "X" per dwg D2750 (welding instructions on sheet 5)

Pm 07-05-250

4-Deburr and blow out all chips from inside of tube

Pm 07-05-250

5-Bond web D2739 in place as per QSI 015

A/R

Sikaflex-291

batch: M103561

exp. date: 07-10-01

Pm 07-05-250

6- Weld spacers D3490-1, D3490-5 and D2743 as per dwg D2750 & QSI004

(welding instructions on sheet 5)

A/R

Aluminum Rod

batch:

M 103794

BE 07-05-28

7-Grind welds flush as per Dwg D2750

Pm 07-05-280

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Job Number: 31682

Part Number: D350636014

Job Number:



Seq. #:

Machine Or Operation:

Description:

10-Spot face ground handling holes section J-J (total of 4 places per side) as per dwg D2750

Am 07-05-280

11-Debur holes

Am 07-05-280

14.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

Mo 07/05/29

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Am 07-05-280

16.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Gloss White (Ref. 4.3.5.1) as per Dart QSI 005 4.3

BR/ML 07/05/29

17.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

Inspect for foreign object per QSI 024

FL 07/05/29 (1)

18.0

NAS1330S3KB166

INSERT



Comment: Qty.: 42.0000 Each(s)/Unit Total : 42.0000 Each(s)

INSERT

Batch:

Am 102849 m 102388

19.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Install inserts as per dwg D2750

FL 07/05/29 (P)

20.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Inspect Inserts

ML 07 05 29 (1)

W/O:		WORK ORDER CHANGES					
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Job Number: 31682

Part Number: D350636014

Job Number:



Seq. #:	Machine Or Operation:	Description :
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21.0	D26483	Wearpad
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Comment: Qty.: 5.0000 Each(s)/Unit Total : 5.0000 Each(s)
Wearpad
Batch: B30648

22.0	D265613	Wearplate
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Wearplate
Batch: B30553

23.0	D265635	Wearplate
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Wearplate
Batch: B30554

24.0	D2746	Wearshoe
------	-------	----------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Wearplate
Batch: B32283

25.0	D2745	Bushing
------	-------	---------



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)
Bushing
Batch: B30568

26.0	D3488042	BLADE FITTING ASSEMBLY, RH
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Blade Fitting, LH
Batch: B30112

27.0	D3492041	PLUG ASSEMBLY
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Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)
PLUG ASSEMBLY
Batch: B31670

FL

07/05/29 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Job Number: 31682

Part Number: D350636014

Job Number:



Seq. #:	Machine Or Operation:	Description :
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28.0	D3492045	PLUG ASSEMBLY
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Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)
PLUG ASSEMBLY
Batch: B50131

29.0	AN3C5A	Bolt
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Comment: Qty.: 38.0000 Each(s)/Unit Total : 38.0000 Each(s)
Bolt
Batch: m104118

30.0	AN3C6A	BOLT
------	--------	------



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Bolt
Batch: m103693

31.0	AN3C7A	BOLT
------	--------	------



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
BOLT
Batch: m19522

32.0	AN6C44A	BOLT
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
BOLT
Batch: m103692

33.0	AN8C35A	BOLT
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
BOLT
Batch: m102180

34.0	AN960C10L	washer
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Comment: Qty.: 46.0000 Each(s)/Unit Total : 46.0000 Each(s)
washer
Batch: m104215

FL 07/05/29 0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 31682

Part Number: D350636014

Job Number:



Seq #:

Machine Or Operation:

Description :

35.0

AN960C816L

WASHER



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

WASHER

Batch: m104093

36.0

MS210436

NUT



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

NUT

Batch: m103693

37.0

MS21083C8

NUT



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

NUT

Batch: m103492

38.0

NAS1515H3L

WASHER



Comment: Qty.: 46.0000 Each(s)/Unit Total : 46.0000 Each(s)

WASHER

Batch: m103641

39.0

NAS1515H8L

WASHER



Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)

WASHER

Batch: m103924

Feb 07/05/29 ⑦

40.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Assemble tube hardware as per dwg D2750

sikaflex, batch: m103561
07/10.

2-Inspect For Foreign Objects

3-Spray inside of tube with "LPS-3" batch: m104161

4-Install blade fitting D3488-041, wearshoe

SIKA FLEX 241

BATCH: m103561

07/10

Feb 07/05/30
①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Job Number: 31682

Part Number: D350636014

Job Number:



Seq. #:

Machine Or Operation:

Description:

EXP DATE: 07/10

5-Coat all exposed fasteners with "LPS Procyon"

batch: m17168

FA 07/05/30(1)

41.0

QC5

INSPECT WORK TO CURRENT STEP



2705-30 @



Comment: INSPECT WORK TO CURRENT STEP

42.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

43.0

D2741

Blade



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Blade

Batch: B30556 ✓

✓

44.0

AN960C816L

WASHER



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Washer

Batch: M100186 ✓

✓

45.0

MS21083C8

NUT



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Nut

Batch: M104118 ✓

✓

46.0

AN8C21A

BOLT



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Bolt

Batch: M104117 ✓

✓

FA 07/05/30(1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 12/15/30
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY RH

Job Number: 31682

Part Number: D350636014

Job Number:



Seq. #:

Machine Or Operation:

Description :

47.0

NAS1515H8L

WASHER



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

WASHER

Batch: 1104260 ✓

48.0

D34931

WASHER



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

WASHER

Batch: 1330662 ✓

49.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

50.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Package as per PPP D350-636-014

51.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



REV: E 4/12/07 10:30 AM
W 07/05/30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries



DESIGN <i>PH</i>	DRAWN BY <i>PH</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>PH</i>	APPROVED <i>PH</i>	DRAWING NO. D2750	REV. D SHEET 1 OF 5
DATE 06.01.05		TITLE 350 SKIDTUBE ASSEMBLY SCALE NTS	
A	98.04.16	NEW ISSUE	
B	98.09.01	CHANGE MS24694-S293 TO AN8-16A	
C	98.11.18	ADD D2750-3/D2750-4 INCORPORATE D2738 AND D2740	
D	06.01.05	ADD HOLES AND SPACERS FOR APICAL FLOATS INCORPORATE DEO 9133/9157	

RELEASED
06.02.07 *PH*

UNDER REVIEW *OK*
CB

07.02.05 *CB*

*add gaskets
change to SS wearplates*

Qty -041	Qty -042	Qty -043	Qty -044	Part Number	Description
X				D2750-041	SKIDTUBE ASSEMBLY, LH
	X			D2750-042	SKIDTUBE ASSEMBLY, RH
		X		D2750-043	SKIDTUBE ASSEMBLY, LH
			X	D2750-044	SKIDTUBE ASSEMBLY, RH
5	5	5	5	D2648-3	WEARPAD
1	1	1	1	D2656-13	WEARSHOE
1	1	1	1	D2656-35	WEARSHOE
1	1	1	1	D2746	WEARSHOE
1	1	1	1	D2739	WEB
1	1	1	1	D2741	BLADE
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
38	38	38	38	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN3C7A	BOLT
4	4	4	4	AN6C44A	BOLT
2	2	2	2	AN8C21A	BOLT
1	1	1	1	AN8C35A	BOLT
46	46	46	46	AN960C10L	WASHER
4	4	4	4	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
3	3	3	3	MS21083C8	NUT
42	42	42	42	NAS1330S3KB166	INSERT
46	46	46	46	NAS1515H3L	WASHER
12	12	12	12	NAS1515H8L	WASHER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *31682*

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DART

DESIGN PH	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED #	APPROVED #	DRAWING NO. D2750	REV. 0 SHEET 2 OF 5
DATE 06.01.05		TITLE 350 SKIDTUBE ASSEMBLY	SCALE NTS

UNDER REVIEW

07 02 05 CB

SS wearplates

OK
CB**RELEASED**
06.02.07 #**GENERAL NOTES:**

1. ALL DIMENSIONS ARE IN INCHES
2. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
3. MAKE FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
4. DAMAGE TOLERANCE ON BENDING:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 12 INCHES ABOVE THE GROUND. NO GOUGING IS ACCEPTABLE IN THE FLAT PORTION OF THE TUBE. GOUGES UP TO 0.020 ARE ACCEPTABLE IN THE BENT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.150 ± 0.010 IN THE FLAT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.15 ± 0.030 IN THE BENT PORTION OF THE TUBE.
5. ALL HOLES DRILLED ON CENTERLINES EXCEPT THOSE NOTED BY SECTIONS E-E, F-F, AND R-R.
6. WELDING TO BE DONE PER DART QSI 004.
7. FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
8. FINISH:
ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
9. INSTALL NAS1330S3KB166 INSERTS AFTER FINISH AS INDICATED IN D2750-1/-2/-3/-4 WELDING DETAIL ON PAGE 4 AND 5. DRILL 'E' SIZE HOLES ($\emptyset 0.250$ - $\emptyset 0.257$) FOR WEARSHOE INSERTS. C'SINK $\emptyset 0.391 \times 100^\circ$ AND INSTALL INSERTS
10. D3488-041 (OR D3488-042) BLADE FITTING AND AN3-5A/AN3-7A WEARSHOE SCREWS TO BE INSTALLED USING SIKAFLEX-241 (OR EQUIVALENT) SEALANT.
11. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
12. APPLY A LAYER OF SIKAFLEX -241/-291 ADHESIVE BETWEEN THE BOTTOM OF THE SKIDTUBE ASSEMBLY AND THE WEARPLATES

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SCALE
1:20

UNDER REVIEW

OK CB
07.02.05 CB
54 wear plates

OK CB

SEE DET. G
DETAIL G

INSTALL NAS1330S3KB166
WEARSHOE INSERTS (38 PLACES)
AFTER FINISH

RELEASED
06.02.07 #

INSTALL NAS1330S3KB166
INSERTS (4 PLACES)
AFTER FINISH

D2750-041/-042 ASSEMBLY
D2750-041 SHOWN (D2750-042 OPPOSITE)

BOND D2739 WEB INTO D2750-1 (OR D2750-2)
OUTER TUBE WITH NON-STRUCTURAL
SIKAFLEX-241 ADHESIVE PER DART OSI 015.
NOTE: ENSURE THAT HOLES LINE UP.

SEE DET. P
SEE DET. N
D3488-041
(OR D3488-042)

BLACK ANTI-SKID

D2741

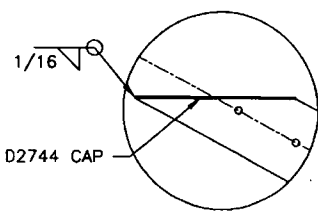
SEE DET. M

NO INSERT

WELDED SPACER
NOT REQUIRED

SEE DET. K

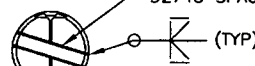
DETAIL G



D2744 CAP

SECTION H-H

D2743 SPACER (REF)



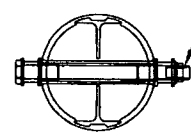
WELDING INSTRUCTIONS

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2743 SPACER
3. WELD INTO PLACE
4. GRIND FLUSH
5. DRILL OUT SPACER TO Ø0.484
6. SPOT FACE Ø0.750 (SECTION J-J ONLY)

SECTION J-J

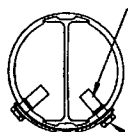


DETAIL M



- AN6-44A BOLT (1)
D2745 BUSHING (2)
NAS1515H8L WASHER (2)
MS21043-6 NUT (1)
(4 PLACES)
NOTE: INSTALL WASHER BETWEEN
SKIDTUBE AND BUSHING

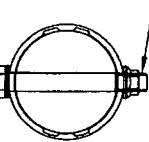
DETAIL K



USE AN3C7A BOLTS
FOR INSTALLING AFT
D2648-3 WEARPAD
(4 PLACES)

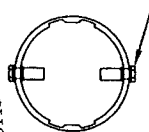
- AN3C5A BOLT (1)
AN960JD10L WASHER (1)
NAS1515H3L WASHER (1)
(38 PLACES)

DETAIL P



- AN8C35A BOLT (1)
AN960C816L WASHER (2)
NAS1515H8L WASHER (2)
MS21083C8 NUT (1)

DETAIL Q

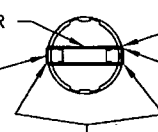


- AN3C6A BOLT (1)
AN960C10L WASHER (1)
NAS1515H3L WASHER (1)
(4 PLACES)

SECTION L-L

D3490-3 SPACER

Ø0.750 HOLES ONLY



D3492-043 PLUG ASSEMBLY

SECTION S-S

D3490-1 SPACER

Ø0.500 HOLES ONLY

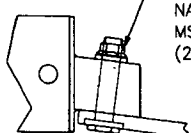


D3492-041 PLUG ASSEMBLY

WELDING INSTRUCTIONS

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D3490-1 SPACER (4 PLACES) INTO Ø0.500 HOLES OR INSERT D3490-3 SPACER (4 PLACES) INTO Ø0.750 HOLES
3. WELD INTO PLACE
4. GRIND FLUSH
5. INSERT D3492-041 PLUG ASSEMBLY (8 PLACES) INTO D3490-1 SPACER OR INSERT D3492-043 PLUG ASSEMBLY (8 PLACES) INTO D3490-3 SPACER ON BOTH ENDS

DETAIL N



- AN8C21A BOLT (1)
AN960JD816L WASHER (1)
NAS1515H8L WASHER (1)
MS21083C8 NUT (1)
(2 PLACES)

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DATE 06.01.05		TITLE 350 SKIDTUBE ASSEMBLY		SCALE 1:20	

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UNDER REVIEW

01.07.05 CB

OK CB

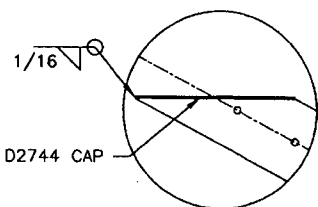
SEE DET. Q

DETAIL G

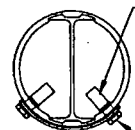
INSTALL NAS1330S3KB166
WEARSHOE INSERTS (38 PLACES)
AFTER FINISH

RELEASED
06.02.07.1

DETAIL G



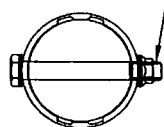
DETAIL K



USE AN3C7A BOLTS
FOR INSTALLING AFT
D2648-3 WEARPAD
(4 PLACES)

AN3C5A BOLT (1)
AN960C10L WASHER (1)
NAS1515H3L WASHER (1)
(38 PLACES)

DETAIL P



AN8C35A BOLT (1)
AN960C816L WASHER (2)
NAS1515H8L WASHER (2)
MS21083C8 NUT (1)

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NO. 31682

D2750-043/-044 ASSEMBLY
D2750-043 SHOWN (D2750-044 OPPOSITE)

INSTALL NAS1330S3KB166
INSERTS (4 PLACES)
AFTER FINISH

BOND D2739 WEB INTO D2750-3 (OR D2750-4)
OUTER TUBE WITH NON-STRUCTURAL
SIKAFLEX-241 ADHESIVE PER DART QSI 015.
NOTE: ENSURE THAT HOLES LINE UP.

SEE DET. P
SEE DET. N

D3488-041
(OR D3488-042)

D2741

BLACK ANTI-SKID

SEE DET. M

NO INSERT

WELDED SPACER
NOT REQUIRED

SEE DET. K

D2648-3

D2648-3

D2656-13

D2746

D2648-3

SECTION H-H



D2743 SPACER (REF)

(TYP)

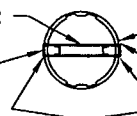
SECTION J-J



WELDING INSTRUCTIONS

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2743 SPACER
3. WELD INTO PLACE
4. GRIND FLUSH
5. DRILL OUT SPACER TO Ø0.484
6. SPOT FACE Ø0.750 (SECTION J-J ONLY)

SECTION T-T



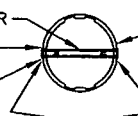
D3490-1 SPACER

Ø0.500 HOLES ONLY

(TYP)

D3492-041 PLUG ASSEMBLY

SECTION U-U



D3490-5 SPACER

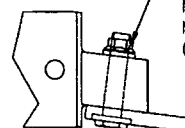
Ø0.313 HOLES ONLY

D3492-045 PLUG ASSEMBLY

WELDING INSTRUCTIONS

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D3490-5 SPACER (4 PLACES) INTO Ø0.313 HOLES OR INSERT D3490-1 SPACER (4 PLACES) INTO Ø0.500 HOLES
3. WELD INTO PLACE
4. GRIND FLUSH
5. INSERT D3492-045 PLUG ASSEMBLY (8 PLACES) INTO D3490-5 SPACER OR INSERT D3492-041 PLUG ASSEMBLY (8 PLACES) INTO D3490-1 SPACER ON BOTH ENDS

DETAIL N



AN8C21A BOLT (1)
AN960JD816L WASHER (1)
NAS1515H8L WASHER (1)
MS21083C8 NUT (1)
(2 PLACES)

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CHECKED
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06.01.05

DRAWN BY
APPROVED
TITLE
350 SKIDTUBE ASSEMBLY

DART DART AEROSPACE USA, INC.
PORT HADLOCK, WA
DRAWING NO.
D2750
REV. D
SHEET 5 OF 5
SCALE
1:20

NO. 109

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name Barclay Elliott
Joint Welding Procedure Tig
Part number and Job number A350636014 / A31622

TEST WELDS REQUIRED

BASE METAL Alum WELDING PROCESS Tig
Penetration Complete ☐ Partial ☒ Single Weld ☒ Double Weld ☐
Current AC ☒ DC ☐ Backing YES ☐ NO ☒

	Position	Vertical	Down <input type="checkbox"/>	Up <input type="checkbox"/>
Sheet Groove	1G <input type="checkbox"/>	2G <input type="checkbox"/>	3G <input type="checkbox"/>	4G <input type="checkbox"/>
Tube Groove	1G <input type="checkbox"/>	2G <input type="checkbox"/>	5G <input type="checkbox"/>	6G <input type="checkbox"/>
Sheet Fillet	1F <input type="checkbox"/>	2F <input type="checkbox"/>	3F <input type="checkbox"/>	4F <input type="checkbox"/>
Tube Fillet	1F <input type="checkbox"/>	2F <input type="checkbox"/>	4F <input type="checkbox"/>	5F <input type="checkbox"/>

Crossbolt Spacer Welded into Skidtube

TEST RESULTS

Visual Pass ☒ Fail ☐
Penetration Pass ☒ Fail ☐
Crossbolt Spacer Pass ☒ Fail ☐

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

Date of Test Coupon 07/05/23 Qualifier David Newd